

## **Simulating Future Streamflows in Rainfall Driven Rivers in British Columbia Using IHACRES and Improved Climate Downscaling**

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Recent work has identified the need to improve the methods used to simulate the impacts of future climates on streamflows in rainfall-driven streams. In this context the PC-IHACRES rainfall-streamflow modelling approach, employing a six-parameters unit hydrograph based technique, has been applied to four coastal rainfall driven catchments in British Columbia (Canada) and calibrated to obtain a set of dynamic response characteristic (DRCs) describing the hydrological processes and the watershed physical characteristics within the region. The PC-IHACRES loss module sensitivity to (future) changes in temperature and precipitation has been studied and a first attempt to use the modelling technique along with an improved hybrid analog/neural network downscaling method for the future time period has provided runoffs for future climates. The changes that these simulations indicate are described and some hydrologic analysis presented.